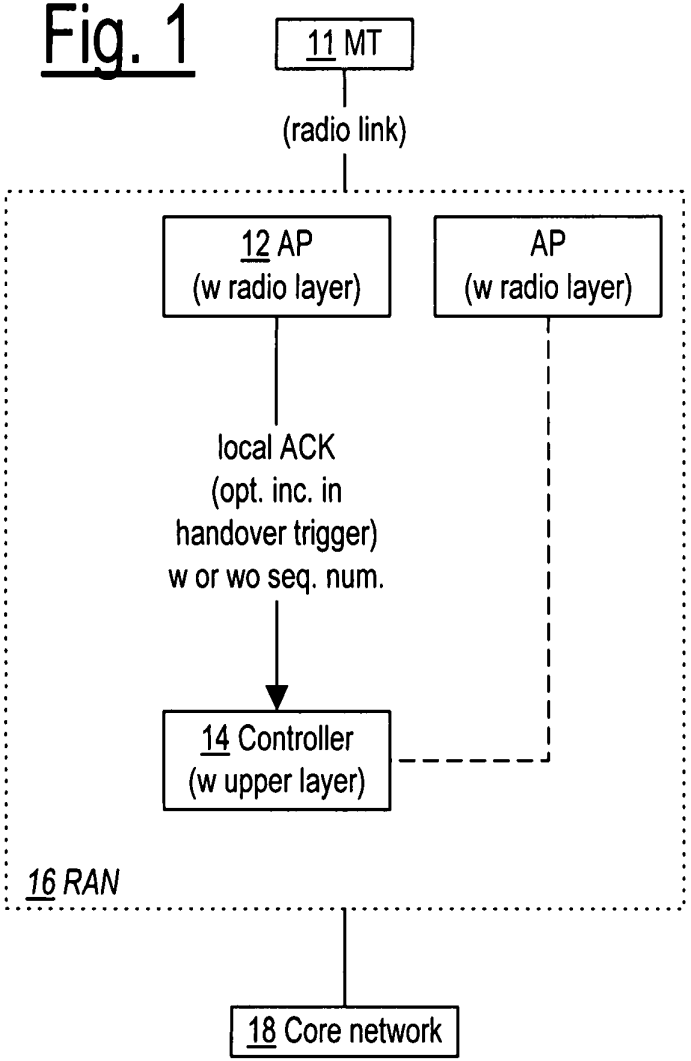
Fig. 1


11 MT
(radio link)
12 AP
(w radio layer)
AP
(w radio layer)
local ACK
(opt. inc. in
handover trigger)
w or wo seq. num.
14 Controller
(w upper layer)
16 RAN
18 Core network

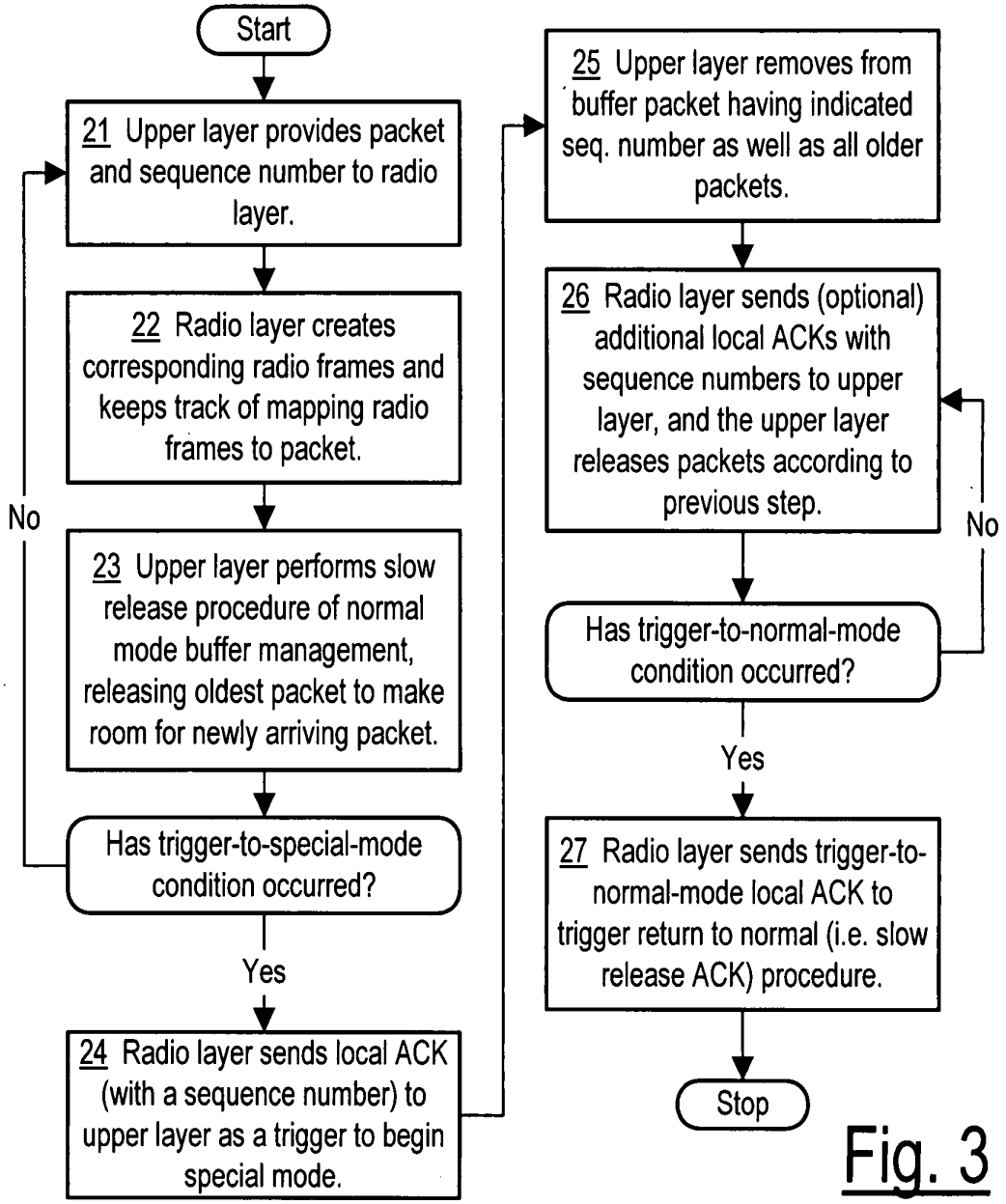

Start
21 Upper layer provides packet and sequence number to radio layer.
22 Radio layer creates corresponding radio frames and keeps track of mapping radio frames to packet.
23 Upper layer performs slow release procedure of normal mode buffer management, releasing oldest packet to make room for newly arriving packet.
Has trigger-to-special-mode condition occurred?
No
Yes
24 Radio layer sends local ACK (with a sequence number) to upper layer as a trigger to begin special mode.
25 Upper layer removes from buffer packet having indicated seq. number as well as all older packets.
26 Radio layer sends (optional) additional local ACKs with sequence numbers to upper layer, and the upper layer releases packets according to previous step.
Has trigger-to-normal-mode condition occurred?
No
Yes
27 Radio layer sends trigger-to-normal-mode local ACK to trigger return to normal (i.e. slow release ACK) procedure.
Stop

Fig. 3

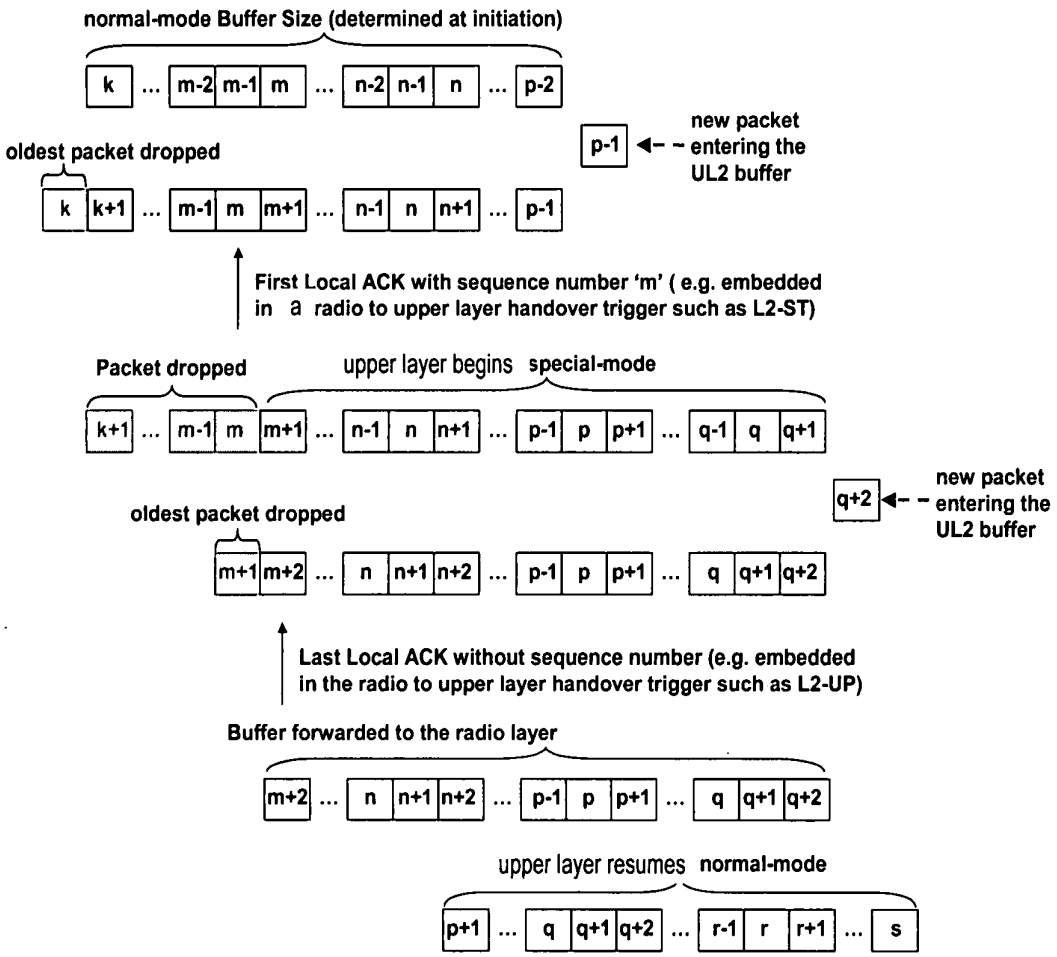


FIG. 2

Note: between First Local ACK and Last Local ACK, other local ACK(s) may occur to update the buffer

Fig. 4

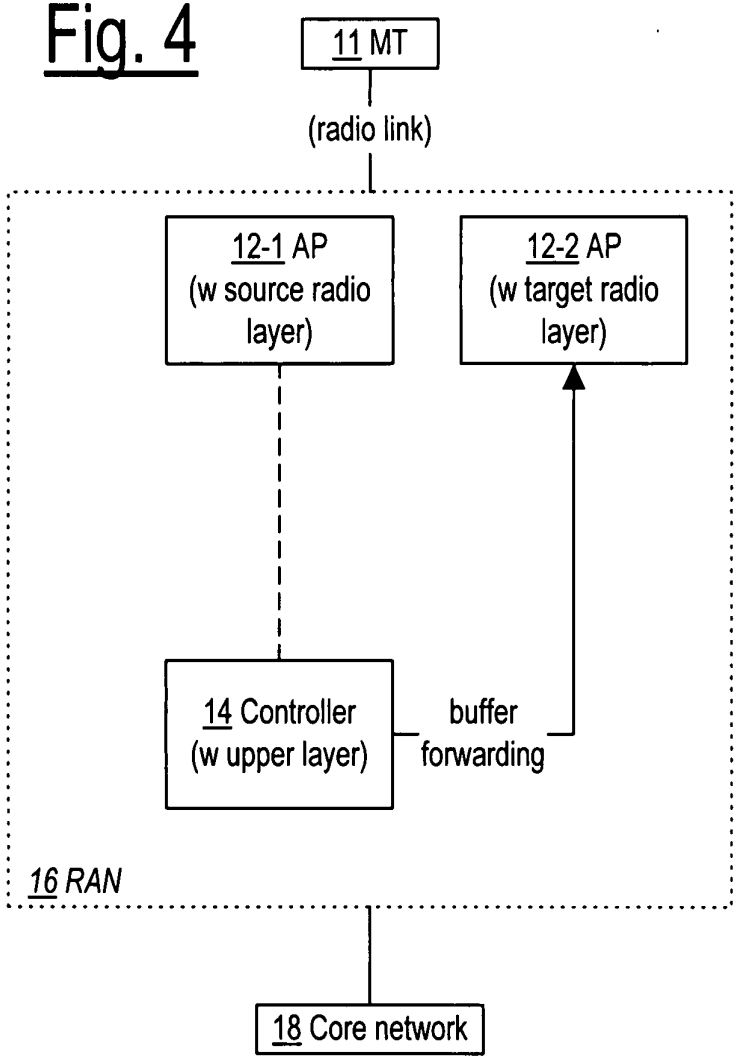
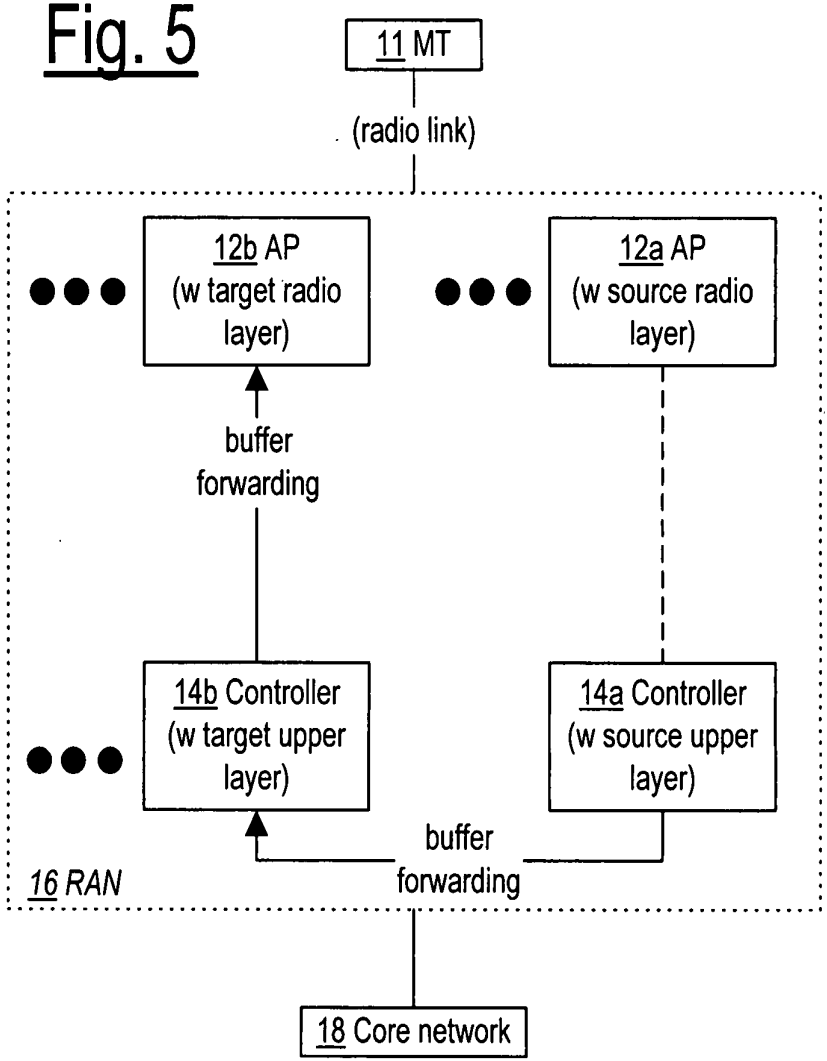

11 MT
(radio link)
12-1 AP
(w source radio layer)
12-2 AP
(w target radio layer)
14 Controller
(w upper layer)
buffer forwarding
16 RAN
18 Core network

Fig. 5


11 MT
(radio link)
12b AP
(w target radio layer)
12a AP
(w source radio layer)
buffer forwarding
14b Controller
(w target upper layer)
14a Controller
(w source upper layer)
buffer forwarding
16 RAN
18 Core network

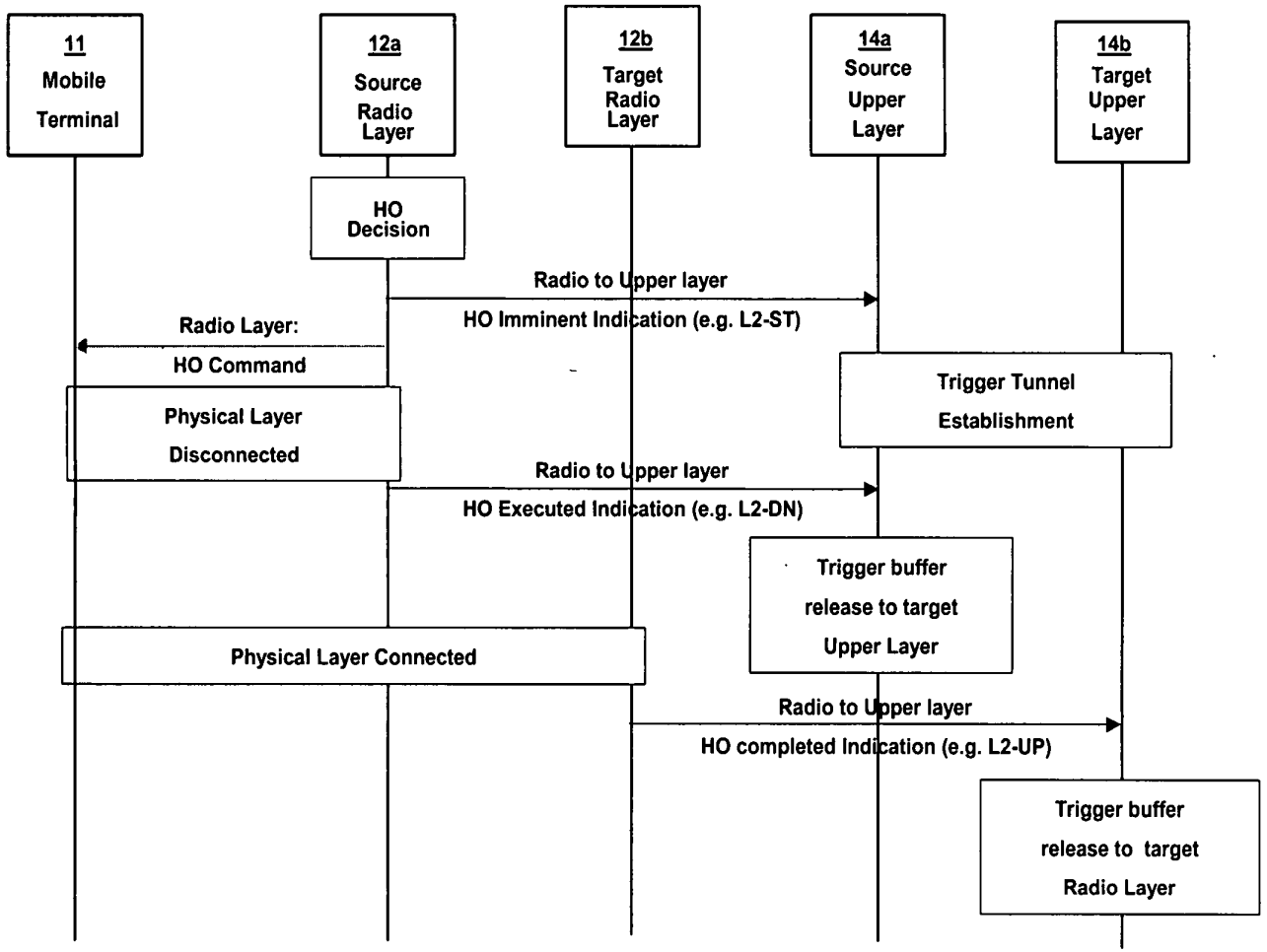

11
Mobile
Terminal
12a
Source
Radio
Layer
12b
Target
Radio
Layer
14a
Source
Upper
Layer
14b
Target
Upper
Layer
HO
Decision
Radio to Upper layer
HO Imminent Indication (e.g. L2-ST)
Radio Layer:
HO Command
Trigger Tunnel
Establishment
Physical Layer
Disconnected
Radio to Upper layer
HO Executed Indication (e.g. L2-DN)
Trigger buffer
release to target
Upper Layer
Physical Layer Connected
Radio to Upper layer
HO completed Indication (e.g. L2-UP)
Trigger buffer
release to target
Radio Layer

FIG. 6